Author Index

Addie, G. R., 165
Afacan, A., 179
Akiyama, T., 69
Atakül, H., 185

Besançon, P., 15, 23
Biatopiotrowicz, T., 211
Buckton, G., 237

Carley, J. F., 1
Čarský, M., 251
Chaouki, J., 95
Chastang, J., 15, 23
Chen, R. Y., 225
Chrzczonowicz, M., 217
Clift, R., 165

Donsì, G., 75

Ekinci, E., 185

Fan, L. T., 255
Ferrari, G., 75
Formisani, B., 75

Grandjean, B. P. A., 95

Hartman, M., 251
Hashimoto, H., 51
Hristov, J.-Y., 103
Hryniewicz, T., 217
Hui, K. W., 225
Hurd, A. J., 289

Ilyenko, B. K., 251

Jańczuk, B., 211
Johnson, G. P., 289
Jongejan, M. P., 143

Kienzler, R., 29
Kunii, D., 193

Lafaye, A., 15, 23
Lafaye, J.-M., 15, 23
Lai, F. S., 255
Levenspiel, O., 193
Longo, G., 75
Lu, C. H., 225

Maffett, J., 165
Makhorin, K. E., 251
Malhotra, K., 155
Masliyah, J. H., 179
Matijević, E., 173
Melendez, I., 289
Miyamoto, Y., 69
Mujumdar, A. S., 155

Page, N. W., 87
Patel, B. B., 207
Patience, G. S., 95
Penchev, I. P., 103

Saxena, S. C., 207
Schmitt, W., 29
Schulze, D., 59
Schwedes, J., 59
Sikong, L., 51
Sivamohan, R., 119
Skubata, W., 217
Smith, D. M., 289
Stemerding, S., 39

Tolay, M., 185
Tong Husong, 231

Vachot, P., 119
van Zuilichem, D. J., 39

Warpenius, M. K., 87
Wes, G. W. J., 39
Wilcox, W. R., 173
Wilson, K. C., 165
Wójcik, W., 211

Yashima, S., 51
Yie-Shein Her, 173
Yi-Ming Chen, 255

Zimmels, Y., 131

© Elsevier Sequoia/Printed in The Netherlands

Subject Index

Adhesion
work of, in the system coal/*n*-alkane film–air bubble–water, studies on, 211
Adsorption, contact angle and wettability with respect to powders, 237
Aeration and simultaneous vibration for controlling flow of cohesive powders, 39

Behaviour of fluidized beds
of ferromagnetic particles in an axial magnetic field, 103
Breakage behaviour
of fine particles of brittle minerals and coals, 51
Bubble frequency
in a fluidized bed at elevated pressure, 251
Bulk solids
measurement of flow properties of, 59

Channelling
theories on, reviewed and compared with experiments, 143
Coals
brittle, breakage behaviour of, 51
Comparative study of stirred and vibratory mills for fine grinding of muscovite, wollastonite and kaolinite, 119
Compressed spheres
numerical analysis of, in single-particle comminution, 29
Compression effects
in mercury porosimetry, 289
Confined fluidization
of fine particles in a packed bed of coarse particles: model and experimental description, 75
Contact angle
in the system coal/*n*-alkane film–air bubble–water, studies on, 211
Contact angle, adsorption and wettability with respect to powders, 237
Continuous precipitation
of monodispersed yttrium basic carbonate powders, 173
Control of flow of cohesive powders
by means of simultaneous aeration and vibration, 39

Deposition of charged particles
in a convergent channel due to image forces, theoretical study of, 225
Detection of segragation tendencies in a fluidized bed using temperature profiles, 185
Determination of quantiles
to obtain a continuous representation of a particle size distribution, 23
Diffusion
hydrodynamic, of particulates in sedimentation systems, 131

Effect
of broad particle grading on slurry stratification ratio and scale-up, 165
of vertical partitions on rate of entrainment of solid particles from a trough in a wind tunnel, 69
Entrainment
of solid particles from a trough in a wind tunnel, 69
of solids from fluidized beds; hold-up of solids in the freeboard of fast fluidized beds, 193

Ferromagnetic particles
behaviour of fluidized beds of, in an axial magnetic field, 103
Fine particles
of brittle minerals and coals, breakage behaviour of, 51
Fine powders
heat transfer from a tube bundle in a slurry bubble column involving, 207
Flow of cohesive powders
control of, by means of simultaneous aeration and vibration, 39
Flow properties
of bulk solids, measurement of, 59
Fluidization
confined, of fine particles in a packed bed of coarse particles, 75
Fluidized beds
circulating, solids flow metering from pressure drop measurement in, 95
at elevated pressure, bubble frequency in, 251
entrainment of solids from, 193
fast, operation of, 193
of ferromagnetic particles in an axial magnetic field, behaviour of, 103
hold-up of solids in freeboard of, 193
use of temperature profiles to detect segregation tendencies in, 185
Freeboard of fluidized beds
solids hold-up in, 193
Fuel cells
elevated-temperature natural-gas, porous sinters for, 217

Grading
broad, of particles, effect of on slurry stratification ratio and scale-up, 165
Granular beds
stirred by paddle-type blades, particle mixing and solids flowability in, 155
Grinding
fine, of muscovite, wollastonite and kaolinite in stirred and vibratory mills, comparative study of, 119

Heat transfer
from a tube bundle in a slurry bubble column involving fine powders, 207
Histograms
particle size, improvement of resolution of, by optimal division of classes, 15
Hydrodynamic diffusion
of particulates in sedimentation systems, 131

Image forces
deposition of charged particles in a convergent channel due to, 225
Improvement of the resolution of particle size histograms by optimal division of classes, 15

Kaolinite, muscovite and wollastonite
fine grinding of, in stirred and vibratory mills, comparative study of, 119

Line-start incremental sedimentation methods
unified derivation for calculating particle size distribution for, 231
Loading relations
for metal powders pressed to high density, 87

Magnetic field
axial, behaviour of fluidized beds of ferromagnetic particles in, 103
Measurement of flow properties of bulk solids, 59
Mercury porosimetry
compression effects in, 289
Metal powders
pressed to high density, loading relations for, 87
Minerals
brittle, breakage behaviour of, 51
Muscovite, wollastonite and kaolinite
fine grinding of, in stirred and vibratory mills, comparative study of, 119

Natural-gas fuel cells
elevated-temperature, porous sinters for, 217
Numerical analysis of compressed spheres
in single-particle comminution, 29

Packed bed of coarse particles
confined fluidization of fine particles in a, 75
Particle mixing and solids flowability
in granular beds stirred by paddle-type blades, 155
Particle size distribution
determination of quantiles to obtain a continous representation of, 23
for line-start incremental sedimentation methods, unified derivation for calculating, 231
Particles
charged, theoretical study of deposition in a convergent channel due to image forces, 225
coarse, confined fluidization of fine particles in a packed bed of, 75
solid, entrainment of, from a trough in a wind tunnel, 69
Particulates
hydrodynamic diffusion of, in sedimentation systems, 131
Posority variations
in bars and cylinders cold-pressed from common salt, 1
Porous sinters
for elevated-temperature natural-gas fuel cells, 217
Powders
contact angle, adsorption and wettability of, 237
monodispersed yttrium basic carbonate, continuous precipitation of, 173
Precipitation
continuous, of monodispersed yttrium basic carbonate powders, 173
Pressure drop measurement
in circulating fluidized beds, solids flow metering from, 95

Recent developments in solids mixing, 255
Resolution of particle size histograms
improvement by optimal division of classes, 15
Rotary drums
solids hold-up in, 179

Sedimentation methods
line-start incremental, unified derivation for calculating particle size distribution for, 231
Sedimentation systems
hydrodynamic diffusion of particulates in, 131
Segregation tendencies in a fluidized bed
detection of, using temperature profiles, 185
Single-particle comminution
numerical analysis of compressed spheres, 29
Sinters
porous, for elevated-temperature natural-gas fuel cells, 217
Slurry bubble column
involving fine powders, heat transfer in a tube bundle in, 207
Slurry stratification ratio and scale-up
effect of broad particle grading on, 165
Solids flow metering
from pressure drop measurement in circulating fluidized beds, 95
Solids flowability
and particle mixing in granular beds stirred by paddle-type blades, 155
Solids hold-up
in the freeboard of fluidized beds, 193
in rotary drums, 179
Solids mixing
recent developments in, 255
Spheres
compressed, numerical analysis of, in single-particle comminution, 29
Stirred and vibratory mills
for fine grinding of muscovite, wollastonite and kaolinite, comparative study of, 119
Studies on contact angle and work of adhesion
in the system coal/*n*-alkane film–air bubble–water, 211

Temperature profiles
use of, to detect segregation tendencies in fluidized beds, 185

Theoretical study
of deposition of charged particles in a convergent channel due to image forces, 225
Theories on channeling
reviewed and compared with experiments, 143

Unified derivation for calculating particle size distribution
for line-start incremental sedimentation methods, 231

Vertical partitions
effect on rate of entrainment of solid particles from a trough in a wind tunnel, 69
Vibration and simultaneous aeration
for controlling flow of cohesive powders, 39
Vibratory and stirred mills for fine grinding of muscovite, wollastonite and kaolinite, comparative study of, 119

Wettability, contact angle and adsorption
with respect to powders, 237
Wind tunnel
effect of vertical partitions on rate of entrainment of solid particles from a trough in a, 69
Wollastonite, muscovite and kaolinite
fine grinding of, in stirred and vibratory mills, 119

Yttrium basic carbonate powders
monodispersed, continuous precipitation of, 173